

## **REMARKS/ARGUMENTS**

### **Summary of the Office Action**

Claims 1-7, 14-15, 17, and 20 have been rejected under 35 U.S.C. 102(b) as allegedly anticipated by U.S. Patent Publication No. 2002/0188195 to Mills ("Mills").

Claims 8-9 have been rejected under 35 U.S.C. 103(a) as allegedly obvious over Mills in view of U.S. Patent No. 5,023,072 to Cheng ("Cheng").

Claims 10-13, 19, and 21-22 have been rejected under 35 U.S.C. 103(a) as allegedly obvious over Mills in view of U.S. Patent No. 5,023,072 to Cheng ("Cheng") in view of U.S. Patent No. 5,985,309 to Edwards et al. ("Edwards").

Claims 16 has been rejected under 35 U.S.C. 103(a) as allegedly obvious over Mills in view of U.S. Patent No. 6,623,722 to Osborne ("Osborne").

### **Response to the Office Action**

Claims 1-22 are pending in the application. No claims are amended, canceled, or added herein. Therefore, upon entry of the present response, claims 1-22 will be subject to examination.

#### **A. The Examiner's Response to Arguments**

The Examiner has stated that "the microcapsule additive as disclosed by Mills is in face free of gas," but has provided no evidentiary support, either in the Response to Arguments or elsewhere in the Office Action, that the microcapsule additive as disclosed by Mills is free of gas. On the contrary, Applicant will provide proof hereinbelow that the Examiner's position cannot be maintained.

#### **B. The Mills Reference**

Mills discloses an echogenic medical device that includes a hollow gas filled chamber 5 enclosed by a parabolic echogenic surface 3. Two spacer elements are found on either side of the body chamber, each of which has a radiographic and/or NMR high-density material 2 in the

spacer element. Mills, paragraphs [0091]-[0092]; FIGS. 1-3. The Examiner has held that the microcapsule additive claimed in independent claims 1 and 17 is anticipated by chamber 5 of Mills. Applicant respectfully notes that this is not correct.

Marriam-Webster Online defines “additive” as “a substance added to another in relatively small amounts to effect a desired change in properties,” and The American Heritage Dictionary, 4<sup>th</sup> ed. (2000) defines “additive” as “a substance added in small amounts to something else to improve, strengthen, or otherwise alter it.”

Marriam-Webster Online further defines “microcapsule” as “a tiny capsule containing material (as an adhesive or a medicine) that is released when the capsule is broken, melted, or dissolved,” and The American Heritage Dictionary, 4<sup>th</sup> ed. (2000) defines “microcapsule” as “a small, sometimes microscopic capsule designed to release its contents when broken by pressure, dissolved, or melted.”

Therefore, according to the above dictionaries, a “microcapsule additive” is either “a tiny capsule containing a substance, added to another in relatively small amounts to effect a desired change in properties, that is released when the capsule is broken, melted, or dissolved” or “a small, sometimes microscopic capsule designed to release a substance when broken by pressure, dissolved, or melted, which substance is added in small amounts to something else to improve, strengthen, or otherwise alter it.” None of these definitions are readable on chamber 5 of Mills, which, as shown in FIG. 1-7, is a prevalent portion of the body of Mills’ echogenic device and not “a relatively small amount” of that body.

Further, chamber 5 of Mills is not “substantially free of gas inclusions,” but rather is filled with air or other gases, as repeatedly asserted by Mills. See, for example, Mills, paragraph [0012] (“The parabolic surface defines a gas-filled body chamber”); paragraph [0043] (“By incorporating a parabolic surface defining a gas-filled chamber...”); and paragraph [0047] (“The body chamber comprises voids, bubbles or channels filled with a gas such as air or nitrogen.”). In particular, paragraphs [0079]-[0086] of Mills describe device materials, none of which includes the composite formulations claimed by Applicant.

For at least the above reasons, Applicants’ independent claims 1 and 17, and the claims depending therefrom, are not anticipated by Mills.

Concerning the rejections of claims 8-13, 16, 19, and 21-22 as obvious over Mills in view of Cheng, Edwards, or Osborne, no reason is provided in any of those references that would have motivated one skilled in the art at the time the invention was made to modify the gas-filled chambers of Mills to produce a microcapsule additive substantially free of gas inclusions, for example, to remove all gas from chamber 5 of Mills.

Based on the foregoing, the removal of all rejections against claims 1-22 is respectfully requested.

**Conclusion**

In view of the foregoing remarks, Applicants respectfully request the reconsideration and reexamination of the present application and the timely allowance of the pending claims.

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Respectfully submitted,

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